

MSRRPWLLALALAVALAAGSAGASTGSDATVPVATQDGPDYVFHRAHERMLFQTSY
TLENNGSVICIPNNGQCFCCLAWLKSNGTNAEKLAANILQWITFALSALCLMFYGYQTW
KSTCGWEEIYVATIEMIKFIIIEYFHEFDEPAVIYSSNGNKTWVLRVYAEWLLTCPVILHLS
NLTGLANDYNKRTMGLLVSDIGTIVWGTTAALSKGYVRVIFFLMGLCYGIYFFNAAKV
YIEAYHTVPKGICRDLVRYLAWLYFCSWAMFPVLFLLGPEGFGHINQFNSAIAHAILDL
ASKNAWSMMGHFLRVKIHEHILLYGDIRKKQKVNAGQEMEVETMVHEEDDETQKV
PTAKYANRDSFIIMRDLKEKGFETRASLDGDPNGDAEANAAAGGKPGMEMGKMTG
MGMGMGAGMGMATIDSGRVILAVPDISMVDFFREQFARLPVPYELVPALGAENTLQL
VQQAQSLGGCDFVLMHPEFLRDRSPTGLLPRLKMGGQRAAAFGWAAIGPMRDLIEG
SGVDGWLEGPSFGAGINQQALVALINRMQQAKKMGMGMGMGMGMGGGMGMGM
GMGMGMAPSMNAGMTGGMGGASMGGAVMGMGMGMQPMQQAMPAMSPMMTQ
QPSMMSQPSAMSAGGAMQAMGGVMPSPAPGGRVGTNPLFGSAPSPLSSQPGISP
GMATPPAATAAPAAGGSEAEMLQQLMSEINRLKNELGE

Fig. 1A

MDYGGALSAVGRELLFVTNPVVVNGSVLVPEDQCYCAGWIESRGTNGAQTASNVLQ
WLAAGFSILLMLFYAYQTWKSTCGWEEIYVCAIEMVKVILEFFFEFKNPSMLYLATGH
RVQWLRYAEWLLTCPVILIHLSNLTGLSNDYSRRTMGLLVSDIGTIWWGATSAMATGY
VKVIFFCLGLCYGANTFFHAAKAYIEGYHTVPKGRRCRQVVTGMAWLFFVSWGMFPIL
FILGPEGFGVLSVYGSTVGHTIIDLMSKNCWGLLGHYLRVLIHEHILIHGDIRKTTKLNIG
GTEIEVETLVEDEAEAGAVNKGTKGYASRESFLVMRDKMKEKGIDVRASLDNSKEVE
QEQAARAAMMMMNNGMGMGMGMNGMNGMGGMNGMAGGAKPGLELTPQLQP
GRVILAVPDISMVDFFREQFAQLSVTYELVPALGADNTLALVTQAQNLGGVDFVLIHP
EFLRDRSSTSILSRIRGAGQRVAAGFWAQLGPMRDLIESANLDGWLEGPSFGQGILP
AHIVALVAKMQQMRKMQQMQQIGMMTGGMNGMGGGMGGGMNGMGGGNMNMN
MGNGMGGGMNGMGGNGMNGMGGGNMNMNMGGNGMAGNGMGGGMGGNGM
GGSMNGMSSGVVANVTPSAAGGMGGMMNGGMAAPQSPGMNGGRLGTNPLFNAA
PSPLSSQLGAEAGMGSMMGGMGGMSGMGGMGGMGGMGGGAGAATTQAAGGNAEA
EMLQNLNMNEINRLKRELGE

Fig 1B

MlptavegvsqAQITGRPEWIWLALGTALMGLGTLYFLVKGMGVSDPDAKKFYAITTLVPAIAFT
MYLSMLLGYGLTMVPFGGEQNPIYWARYADWLFTTPLLLLDLALLVDADQGTILALVGADG
IMIGTGLVGALTKVYSYRFVWWAISTAAMLYILYVLFFGFTSKAESMRPEVASTFKVLRNVT
VWLWSAYPVWWLIGSEGAGIVPLNIETLLFMVLDVSAKVGFGILLRSRAIFGEAEAPEPSAG
DGAAATSD

Fig. 1C

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Chop1..MSRRPWLLALALAVALAAGSAGASTGSDATVPVATQDGPDYVFHRAHERMFQTSYTLEN 60
Chop2.....MDYGGALS VGNELLFVTNPVVV 23
Bop.....M

* *
Chop1..NGSVICIPNNGCCFCLAWLKSN--GTNAEKLAANILOWITFALSA CMEYGYGKSTC 118
Chop2..NGSVL-VPED-QCYCAGWIESR--GTNGAQTASNVLOWLAAGFSILLMEVAYGNKSTC 79
Bop..LPTAVEGVSAQITGRPEWIWLALATALMG GTLYFLVKGMVSPDAKKEYAII TLVPA 51

* * * * *
Chop1..GWEETAVATTEMIFLIEYTHEEDEPAVYSSNENKTVNDRYAEWELTCEVILLHESNLT 178
Chop2..GWEETAVCAIEMVIVLELFFEFKNSMLALATCHRVQWERYAEWELTCEVILLHESNLT 139
Bop..IAFTM---LSMLLGYGLTMVPGGEQ-----PIYWARADWAFITELL LDSA-IL 100

* * * * *
Chop1..GLANDYNKGM-GLIVSDIGITVIGTAAWSKGV-RVIFFLMGLCYGIYTFENAR-KVY 235
Chop2..GLSNYSRAFM-GLIVSDIGITVIGTAAWSKGV-KVIFFLMGLCYGANTHEHAR-KAY 196
Bop..V-DAG-Q-GLILAVGAGGIMGTGLVGALTKVSYRFVWVAISTAAMLILYVLFEGFT 157

* * * * *
Chop1..LEAYFTVPKGICADLVRYLAWHYFCSAMQVVELLGPFGHINQFNSAIAHAILDAS 295
Chop2..LEGYHTVPKRCRQVLTGMANLFEVSGMILILGPFGALLSVYGTUVGHTLALMS 256
Bop..SKESMRREV--ASTFKVLRNVTVVLSAMFVVMGISSEGAGIVPLNIETLLFMVDSA 215

#
Chop1..KNASMMGHFLRVKIHENTELYEDIRKQVIVAGQEMVETMHEEDDETQKVP-EAKY 354
Chop2..KNCGLLGHYLRVLIHENTLIHGDIRTTLNIGTTEIEVETLEDFAEAGAVNKGG 316
Bop..KVGEGLI--LLRSRAIFGEAEAPEPSAGDGA-AATSD

Chop1..ANDSRIIMEDRLKEKGFETRASLEGDPNGDABANAAAGGKPGMEMGKMTGMGMSMGAG 414
Chop2..ASRESRLVMDKMKKQIDVRSASLNSKEVEQQAARLAMMMNGNGMGGMNGMNGMNG 376

Chop1..GMATIDS-----GRVILAVPDISMVDFFREOPARLPVPYELVFPALGNET 459
Chop2..GMNGMAGGAKPGLELTPQLQPGEVILAVPDISMVDFFREOPAQSVTYELVFPALGADNT 436

Chop1..LQVQAGSLGGCDFVMHPEFLDRSPNGLIPRLKMGGORAAAFGWAAGFMRDLTEGS 519
Chop2..LALVTQACNLGGVDFVLIHPEFLDRGSTSISRLRGAGQVAAFQWAQLGMRDLTESA 496

Chop1..GVDCHLEGPSFGAGINQALVALINRHCQAKKMGMG-----GMGMGCGGGMG-M 568
Chop2..NLDCHLEGPSFGQILPAHIVALVAKHQQMRKQQQOQIGMMTGGMNGMGCGGCGGNGM 556

Chop1..GMGMG-MAPSINAGHTGGMGG---ASMKK-----AVMGGMGMOPMQQAMP--AMSPM 616
Chop2..GGNGMNNNGNGMGCGGNGMGCGGNGMGCGGNGMNNMGNGMAGNGGGGNGNGGGS 616

Chop1..MTQQPS-MMSQPSAMSAGGAMQAMGVMPSEAP----GRVGTINPLEGSAPSPLESSQ--- 667
Chop2..MNGMSGGVVANVTPSAAGGMGMNGGAAAPQSPGMNGRLGTINPLENAAPSPLESSQLGA 676

Chop1.....PGISPGMATPPAATAAPRAAGSEAEMQLMSPIHRIIN-ELGK 712
Chop2..EAGMGSMGGMGMSGMGGMGGMGGAGAAATQAAGNAPAEMLQNLNRIINRLKRELGE 737

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Fig. 1D

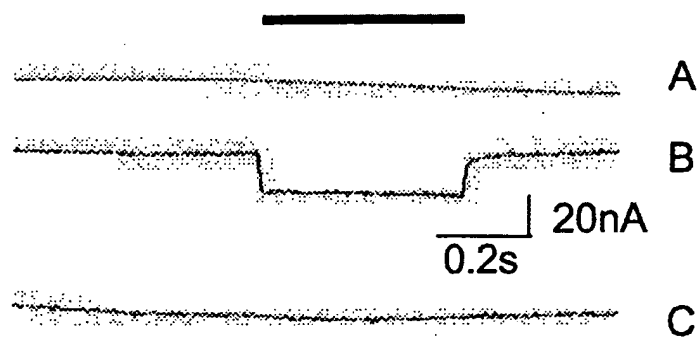
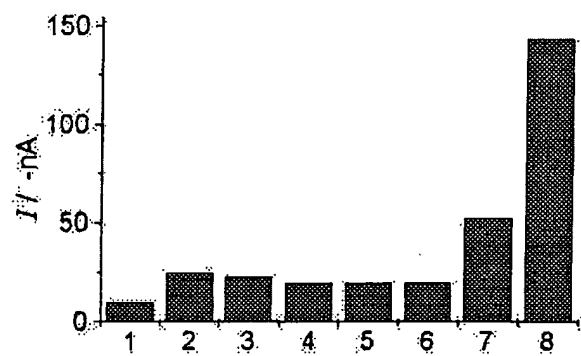
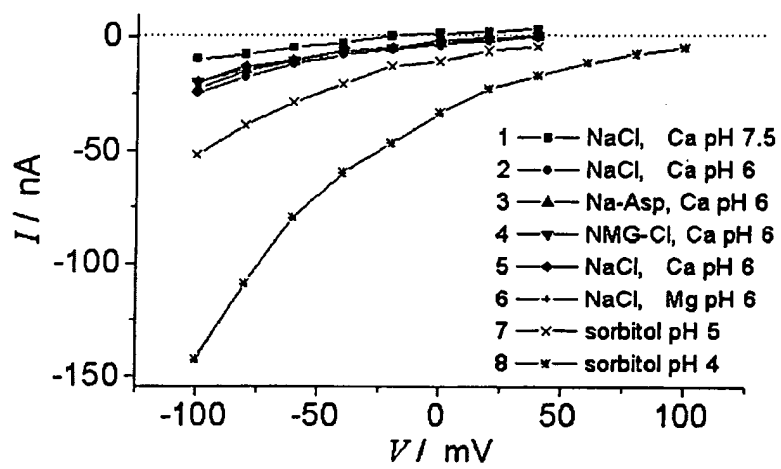


Fig. 2

a**b****Fig. 3**

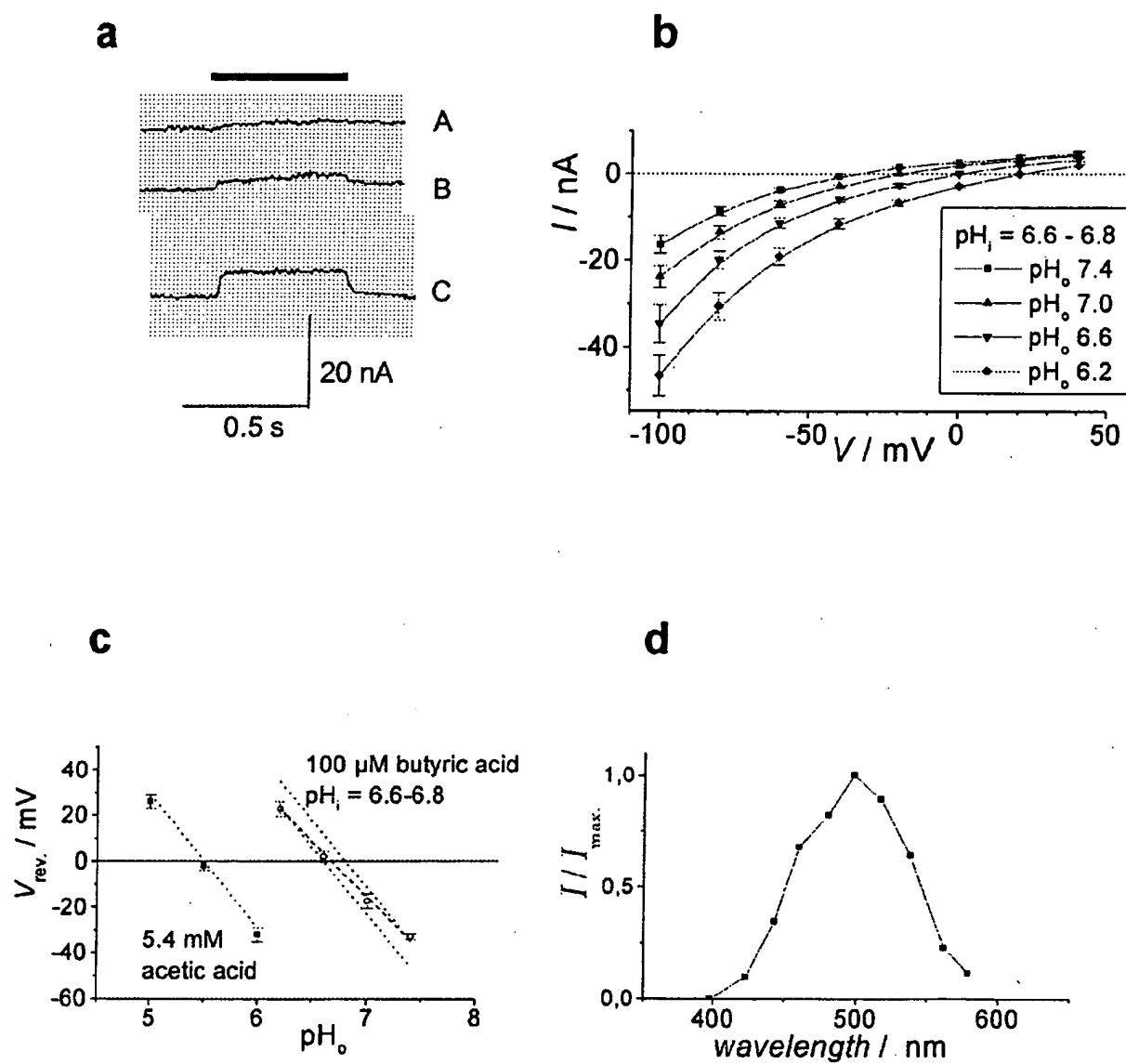


Fig. 4